P/ NT COOPERATION TREA!

	From th	e INTERNATIONAL BU	JREAU
PCT	To:		
NOTIFICATION OF THE RECORDING OF A CHANGE (PCT Rule 92bis.1 and Administrative Instructions, Section 422) Date of mailing (day/month/year)	McNe Rege Heato Stock	EIGHT, David, Leslie eight & Lawrence nt House on Lane port, Cheshire SK4 1E AUME-UNI	9 S
12 October 2000 (12.10.00)	<u> </u>		
Applicant's or agent's file reference M99/0009/PCT		IMPORTANT NOTI	FICATION
International application No. PCT/GB00/00062	1	nal filing date (day/month/ye anuary 2000 (12.01.00)	
The following indications appeared on record concerning: X the applicant the inventor	the agen	t the commo	on representative
Name and Address REFLECTIVE TECHNOLOGY INDUSTRIES LIMITED		State of Nationality GB Telephone No.	State of Residence GB
Road One Winsford Industrial Estate Winsford Cheshire CW7 300 United Kingdom		Facsimile No.	
Similar Kingdom		Teleprinter No.	
2. The International Bureau hereby notifies the applicant that t the person X the name the add	ī-	change has been recorded the nationality	concerning: the residence
Name and Address REFLEC PLC Road One Winsford Industrial Estate		State of Nationality GB Telephone No.	State of Residence GB
Winsford Cheshire CW7 3QQ United Kingdom		Facsimile No.	
		Teleprinter No.	
3. Further observations, if necessary:			
4. A copy of this notification has been sent to:			
X the receiving Office		the designated Offices	concerned
the International Searching Authority		X the elected Offices con-	cerned
X the International Preliminary Examining Authority		other:	
The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland	Authorized	officer Dominique D	ELMAS
Facsimile No.: (41-22) 740.14.35	Telephone N	No.: (41-22) 338.83.38	

P. ENT COOPERATION TREA

	From the INTERNATIONAL BUREAU
PCT	To:
NOTIFICATION OF ELECTION (PCT Rule 61.2)	Assistant Commissioner for Patents United States Patent and Trademark Office Box PCT Washington, D.C.20231 ETATS-UNIS D'AMERIQUE
Date of mailing (day/month/year)	
06 September 2000 (06.09.00)	in its capacity as elected Office
International application No. PCT/GB00/00062	Applicant's or agent's file reference M99/0009/PCT
International filing date (day/month/year)	Priority date (day/month/year)
12 January 2000 (12.01.00)	14 January 1999 (14.01.99)
Applicant SAGAR, Brian	
1. The designated Office is hereby notified of its election made X in the demand filed with the International Preliminary 29 July 2000 (2 in a notice effecting later election filed with the International Preliminary 29 July 2000 (2 in a notice effecting later election filed with the International Preliminary 29 July 2000 (2 in a notice effecting later election filed with the International Preliminary 29 July 2000 (2 in a notice effecting later election filed with the International Preliminary 29 July 2000 (2 in a notice effecting later election filed with the International Preliminary 29 July 2000 (2 in a notice effecting later election filed with the International Preliminary 29 July 2000 (2 in a notice effecting later election filed with the International Preliminary 29 July 2000 (2 in a notice effecting later election filed with the International Preliminary 29 July 2000 (2 in a notice effecting later election filed with the International Preliminary 20 July 2000 (2 in a notice effecting later election filed with the International Preliminary 20 July 2000 (2 in a notice effecting later election filed with the International Preliminary 20 July 2000 (2 in a notice effecting later election filed with the International Preliminary 20 July 2000 (2 in a notice effecting later election filed with the International Preliminary 20 July 2000 (2 in a notice effecting later election filed with the International Preliminary 20 July 2000 (2 in a notice effecting later election filed with the International Preliminary 20 July 2000 (2 in a notice effecting later election filed with the International Preliminary 20 July 2000 (2 in a notice effecting later election filed with the International Preliminary 20 July 2000 (2 in a notice effecting later election filed with the International Preliminary 20 July 2000 (2 in a notice effecting later election filed with the International Preliminary 20 July 2000 (2 in a notice effecting later election	Examining Authority on: 9.07.00) ational Bureau on:

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland

Authorized officer

Zakaria EL KHODARY

Telephone No.: (41-22) 338.83.38

Facsimile No.: (41-22) 740.14.35



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REC'D 21 MAY 2001
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INTERNATIONAL PRELIMINARY EXAMINATION REPORT

14

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference M99/0009/PCT	FOR FURTHER ACTION	See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)
International application No.	International filing date (day/month	/year) Priority date (day/month/year)
PCT/GB00/00062	12/01/2000	14/01/1999
International Patent Classification (IPC) or nat C09D11/02	tional classification and IPC	
Applicant REFLEC PLC et al.		
This international preliminary exami and is transmitted to the applicant a		by this International Preliminary Examining Authority
2. This REPORT consists of a total of	6 sheets, including this cover sh	eet.
been amended and are the bas		e description, claims and/or drawings which have ontaining rectifications made before this Authority ons under the PCT).
These annexes consist of a total of	sheets.	
This report contains indications relat	ing to the following items:	
l ⊠ Basis of the report		
II Priority		
· ·	= ,	entive step and industrial applicability
IV 🖾 Lack of unity of invention		
	der Article 35(2) with regard to n ns suporting such statement	ovelty, inventive step or industrial applicability;
VI Certain documents cite	· -	}
VII Certain defects in the in	ternational application	Ì
VIII 🛛 Certain observations on	the international application	
Date of submission of the demand	Date of co	ompletion of this report
29/07/2000	17.05.200)1
Name and mailing address of the international preliminary examining authority: European Patent Office	Authorize	d officer
D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656	epmu d	P (1997)
Fax: +49 89 2399 - 4465	Telephone	e No. +49 89 2399 8298

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No. PCT/GB00/00062

ı.	Bas	sis fth report	
1.	the and	receiving Office in	nents of the international application (Replacement sheets which have been furnished to response to an invitation under Article 14 are referred to in this report as "originally filed" this report since they do not contain amendments (Rules 70.16 and 70.17)):
	1-2	2	as originally filed
	Cla	ims, No.:	
	1-5	6	as originally filed
	Dra	wings, sheets:	
	1/1		as originally filed
2.			uage, all the elements marked above were available or furnished to this Authority in the nternational application was filed, unless otherwise indicated under this item.
	The	se elements were a	available or furnished to this Authority in the following language: , which is:
		the language of a	translation furnished for the purposes of the international search (under Rule 23.1(b)).
		the language of pu	blication of the international application (under Rule 48.3(b)).
		the language of a t 55.2 and/or 55.3).	translation furnished for the purposes of international preliminary examination (under Rule
3.			leotide and/or amino acid sequence disclosed in the international application, the y examination was carried out on the basis of the sequence listing:
		contained in the int	ternational application in written form.
		filed together with	the international application in computer readable form.
		furnished subsequ	ently to this Authority in written form.
		furnished subsequ	ently to this Authority in computer readable form.
			the subsequently furnished written sequence listing does not go beyond the disclosure in oplication as filed has been furnished.
		The statement that listing has been fur	the information recorded in computer readable form is identical to the written sequence rnished.
4.	The	amendments have	resulted in the cancellation of:

pages:

Nos.:

☐ the description,

☐ the claims,

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No. PCT/GB00/00062

		the drawings,	sheets:		
5.					some of) the amendments had not been made, since they have bee as filed (Rule 70.2(c)):
		(Any replacement sh report.)	eet contai	ining suct	th amendments must be referred to under item 1 and annexed to this
6.	Ado	litional observations, i	f necessa	ry:	
IV.	Lac	ck of unity of invention	on		
		-		ict or pay	y additional fees the applicant has:
		restricted the claims.			
		paid additional fees.			
		paid additional fees u	inder prote	est.	
		neither restricted nor	paid addi	tional fee	es.
2.	Ø				nt of unity of invention is not complied and chose, according to Rule of or pay additional fees.
3.	This	s Authority considers t	hat the red	quirement	nt of unity of invention in accordance with Rules 13.1, 13.2 and 13.3
		complied with.			
	Ø	not complied with for see separate sheet	the follow	ing reaso	ons:
4.		sequently, the followin			rnational application were the subject of international preliminary
	Ø	all parts.			
		the parts relating to c	laims Nos		
V.		soned statement und tions and explanatio			with regard to novelty, inventive step or industrial applicability; ch statement
1.	Stat	ement			
	Nov	elty (N)	Yes: No:	Claims Claims	1-17,24-39,41-56 18-23,40
	inve	entive step (IS)	Yes: No:	Claims Claims	41,42,49-56

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No. PCT/GB00/00062

Industrial applicability (IA) Yes: Claims 1-56

No: Claims

2. Citations and explanations see separate sheet

VIII. Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made: see separate sheet

Re Item IV

Lack of unity of invention

1. Claims 1 to 17 relate to a retroreflective ink containing microbeads. Claims 18 to 22 relate to microbeads for use in the production of a retroreflective ink.

The common concept linking together these 2 groups of claims are microbeads for use in the production of a retroreflective ink. Such microbeads are known from D1 = US-A-5 650 213. Therefore these groups are not linked by a single general inventive concept.

2. Claims 1 to 17 relate to a retroreflective ink. Claims 49 to 55 relate to fabric coated a retroreflective ink. The common concept linking together these 2 groups of claims is a fabric coated with a retroreflective ink. Such a fabric is known from D1(see claim 5). Therefore these groups are not linked by a single general inventive concept.

Re Item V

Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

Reference is made to the following document

D1: US-A-5 650 213 (RIZIKA DANIEL J ET AL) 22 July 1997 (1997-07-22) cited in the application

1. Document D1 relates to microbeads for use in the production of a retroreflective ink. On column 15, lines 48-54 silane coated microbeads and specific aluminium coated glass beads are described. Therefore the subject-matter of claims 18 to 21 lacks novelty with respect to D1. Consequently an ink containing such microbeads (claims 22 and 23) lacks also novelty over D1. In addition a substrate coated with such an ink (claim 40) is also not novel or based on an inventive step (claims 41 and 42).

EXAMINATION REPORT - SEPARATE SHEET

2. Claims 49 to 56 relate to fabrics coated with retroreflective inks (containing or not microbeads). These fabrics if they are novel are not inventive with respect to D1 in which fabrics of different materials are coated with an retroreflective inks containing microbeads.

Re Item VIII

Certain observations on the international application

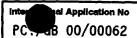
- 1. As a general rule, claims which attempt to define the invention, by a result to be achieved should not be allowed, in particular if they only amount to claiming the underlying technical problem. This is the case for claims 46 to 48, which therefore should be deleted.
- 2. Tradenames such as Proban® or Pyrovatex® in claim 51 are not allowable.

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference M99/0009/PCT	FOR FURTHER see Notification of (Form PCT/ISA/2	f Transmittal of International Search Report 20) as well as, where applicable, Item 5 below.
International application No.	International filing date (day/month/year)	(Earliest) Priority Date (day/month/year)
PCT/GB 00/00062	12/01/2000	14/01/1999
Applicant REFLECTIVE TECHNOLOGY IND	USTRIES LIMITED et al.	
This international Search Report has bee according to Article 18. A copy is being tr	n prepared by this international Searching Aut ansmitted to the international Bureau.	nority and is transmitted to the applicant
This international Search Report consists IX it is also accompanied by	of a total of3sheets. va copy of each prior art document cited in this	report.
Basis of the report a. With regard to the language, the language in which it was filed, un	international search was carried out on the bar less otherwise indicated under this item.	sis of the international application in the
the international search v Authority (Rule 23.1(b)).	vas carried out on the basis of a translation of t	ne international application furnished to this
b. With regard to any nucleotide ar was carried out on the basis of th	nd/or amino acid sequence disclosed in the in	ternational application, the international search
	onal application in written form.	
filed together with the inte	ernational application in computer readable for	n.
furnished subsequently to	o this Authority in written form.	
furnished subsequently to	o this Authority in computer readble form.	
the statement that the su international application a	bsequently furnished written sequence listing d as filed has been furnished.	oes not go beyond the disclosure in the
the statement that the Inf furnished	ormation recorded in computer readable form k	s identical to the written sequence listing has been
2. Certain claims were fou	ind unsearchable (See Box I).	
3. Unity of invention is lac	eking (see Box II).	
4. With regard to the title,		
<u> </u>	ubmitted by the applicant.	
the text has been estable	shed by this Authority to read as follows:	
5. With regard to the abstract,		
the text has been estable	ubmitted by the applicant. shed, according to Rule 38.2(b), by this Authort e date of mailing of this international search rep	
6. The figure of the drawings to be pub	lished with the abstract is Figure No.	
as suggested by the appl		None of the figures.
because the applicant fai	**	
because this figure better	r characterizes the invention.	





A. CLASSIFICATION OF SUBJECT MATTER IPC 7 C09D11/02

According to international Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols) IPC 7 C09D G02B C03C

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

C. DOCUM	ENTS CONSIDERED TO BE RELEVANT	
Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Α	WO 97 12284 A (MINNESOTA MINING & MFG) 3 April 1997 (1997-04-03) page 1, line 10-15 page 8, line 7-15 page 22, line 8-13	1,2
A	GB 2 316 021 A (TRIP PRODUCTIONS B V) 18 February 1998 (1998-02-18) the whole document	
A	US 5 650 213 A (RIZIKA DANIEL J ET AL) 22 July 1997 (1997-07-22) cited in the application	
	-/	

X Further documents are listed in the continuation of box C.	χ Patent family members are listed in annex.
"A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier document but published on or after the international filling date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the international filling date but later than the priority date claimed	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art. "&" document member of the same patent family
Date of the actual completion of the international search 13 April 2000	Date of mailing of the international search report 20/04/2000
Name and mailing address of the ISA European Patent Office, P.B. 5818 Patentiaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo ni, Fax: (+31-70) 340-3016	Authorized officer Miller, A

INTERNATIONAL SEARCH REPORT

Internal Application No PCIFGB 00/00062

C.(Continua	tion) DOCUMENTS CONSIDERED TO BE RELEVANT	
Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
		
A	WO 95 14248 A (REFLECTIVE TECHNOLOGY IND LTD ;SAGAR BRIAN (GB); MOULE ROBERT (GB)) 26 May 1995 (1995-05-26)	
A	& EP 0 729 592 A (REFLECTIVE TECHNOLOGY INDUSTRIES LIMITED) 4 September 1996 (1996-09-04)	
	cited in the application	
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INTERNATIONAL SEARCH REPORT

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on patent family members

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			US	5886067 A	23-03-1999
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			CN	1168724 A	24-12-1997
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			JP	10510930 T	20-10-1998
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			EP	0729592 A	04-09-1996
			JP	9506301 T	24-06-1997
			US	5900978 A	04-05-1999

PCT

WORLD INTELLECTUAL PROPERTY ORGANIZATION International Bureau



INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(57) Abstract

The combination of ingredients, especially for use in the formulation of a one or two-pack retroreflective ink, comprising retroreflective elements, microbeads additional to said retroreflective elements and/or constituting said retroreflective elements at least in part, binder chemicals for attaching the retroreflective elements and microbeads to a substrate to which the ink is to be applied, and a coupling agent for coupling the microbeads and cross-linking the binder chemicals, the coupling agent being unreactive until the printing process is carried

FOR THE PURPOSES OF INFORMATION ONLY

Codes used to identify States party to the PCT on the front pages of pamphlets publishing international applications under the PCT.

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CZ	Czech Republic	LC	Saint Lucia	RU	Russian Federation		
DE	Germany	LI	Liechtenstein	SD	Sudan		
DK	Denmark	LK	Sri Lanka	SE	Sweden		
EE	Estonia	LR	Liberia	SG	Singapore		
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A. CLAS	SSIFICATION OF SUBJECT MATTER C09D11/02		PC1/GB 00/00062
1	C03011/0Z		
According	to international Patent Classification (IPC) or to both natio		
	~ SEARCHED		
Minimum	documentation searched (classification system followed by	/ Cleanification	
110 /	CO9D GO2B CO3C	olassiiication symbols)	
Document	ation searched other than minimum documentation to the ϵ	extent that such documents are included	
Electronic	data base consulted during the international search (name	Of data has a side	
	, <u> </u>	or death base and, where practical, so	earch terms used)
C. DOCUM	ENTS CONSIDERED TO BE RELEVANT		
Calegory	Citation of document, with indication, where appropriate	, of the relevant passages	Polovontanalativa
Α			Relevant to daim No
~ l	WO 97 12284 A (MINNESOTA MIN 3 April 1997 (1997-04-03)	NING & MFG)	1,2
	page 1, line 10-15		1 -,-
ŀ	page 8, line 7-15		
ŀ	page 22, line 8-13		
۹	GB 2 316 021 A (TRID BRODUS		
- 1	GB 2 316 021 A (TRIP PRODUCT 18 February 1998 (1998-02-18	IONS B V)	
	the whole document)	1
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`	US 5 650 213 A (RIZIKA DANIE	L J ET AL)	
	22 July 1997 (1997-07-22) cited in the application	•	
1	application		·
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- 1			į.
Further	documents are listed in the continuation of box C.		
	ories of cited documents:	X Patent family memb	ers are listed in annex.
		"T" later document published	after the international filing date
considere	defining the general state of the art which is not d to be of particular relevance	cited to understand the n	after the international filing date a conflict with the application but rinciple or theory underlying the
filing date	ument but published on or after the international		
which is ci	which may throw doubts on priority claim(s) or fied to establish the publication date of another other special research	"X" document of particular rela cannot be considered no involve an invertible stee	evalore; the claimed invention valor cannot be considered to
	other epecial reason (as specified) referring to an oral disclosure, use, exhibition or	"Y" document of particular mile	when the document is taken alone
		document is combined with	ivolve all inventive step when the
	ublished prior to the international filing date but he priority date claimed	in the art.	being obvious to a person skilled
of the actua	al completion of the international search	*&* document member of the a	
12 4	Annil 2000	Date of mailing of the inter	mational search report
	April 2000	20/04/2000	
e and mailin	g address of the ISA	Authorized officer	
	European Patent Office, P.B. 5816 Patentiaan 2 NL – 2280 HV Rijewijk	Connected OWOSI.	
Ė	Tel. (+31-70) 340-3040, Tx. 31 651 epo ni, Fax: (+31-70) 340-3016	Miller, A	
	soond sheet) (July 1992)	miller, A	



inters nal Application No PCT/GB 00/00062

C.(Continu	uation) DOCUMENTS CONSIDERED TO BE RELEVANT	PCT/GB 00	/00062
Category *	Citation of document, with indication,where appropriate, of the relevant passages		
A	WO 95 14248 A (REFLECTIVE TECHNOLOGY IND LTD; SAGAR BRIAN (GB); MOULE ROBERT (GB)) 26 May 1995 (1995-05-26) & EP 0 729 592 A (REFLECTIVE TECHNOLOGY INDUSTRIES LIMITED) 4 September 1996 (1996-09-04) cited in the application		Relevent to claim No.
CT/ISA/210 (con	tinuation of second sheet) (July 1982)		

1

Inter. nai Application No PCT/GB 00/00062

information on patent family members

Patent document cited in search report		Publication date	í	Patent family member()	Publication date
WO 9712284	Α	03-04-1997	EP	0852745 A	15-07-1998
			JP	11513422 T	16-11-1999
			US	5886067 A	23-03-1999
GB 2316021	Α	18-02-1998	NL	1006745 C	02-11-1999
			NL	1006745 A	12-02-1998
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			CN	1168724 A	24-12-1997
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